

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed August 8, 2011 have been fully considered but they are not persuasive.

Examiner respectfully disagrees with Applicants' assertion that Oh does not teach the feature of the second power control commands being devoid of predetermined pilot signals. Oh teaches, in Cols. 3 lines 8 – 22, 4 lines 32 – 46, 9 lines 61 – 67, 17 lines 53 – 57, that the a downlink signal comprising TPC commands is received and the reliability of said TPC commands is determined. There is no indication at all in the cited sections, or anywhere else in Oh, that said downlink signal includes pilot signals along with said TPC commands. Oh thus reads on the limitations in question.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 13, 15 – 18, 20, 21, 23 – 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oh et al. (US 7,340,268) in view of Park et al. (US 6,654,358)

Regarding Claims 13, 21, Oh teaches a mobile station for use in a communication system having a base station, the mobile station comprising: a receiver/receiver means for receiving from the base station a first downlink signal including at least one second power control command devoid of predetermined pilot signals (Cols. 3 lines 8 – 22, 4 lines 32 – 46, 9 lines 61 – 67, 17 lines 53 – 57); an analyzer/measurement means for measuring a parameter of the second power control commands (Cols. 3 lines 8 – 22, 4 lines 32 – 46, 9 lines 61 – 67, 17 lines 53 – 57, the parameter is an SIR); wherein the analyzer/measurement means is adapted to measure the parameter of the second power control commands included in said first downlink signal (Cols. 3 lines 8 – 22, 4 lines 32 – 46, 9 lines 61 – 67, 17 lines 53 – 57).

Oh does not teach a power controller/power control means for generating first power control commands according to the measured parameter; and a transmitter/transmitter means for transmitting the first power control commands to the base station; wherein the analyzer/measurement means is adapted to measure the parameter of the second power control commands included in said first downlink signal which was subjected to transmit power control in accordance with the first power control commands.

Oh teaches the base process of controlling power of the uplink over which the claimed invention can be seen as an improvement in that the downlink power is controlled.

Park teaches the known technique of generating first power control commands according to a measured parameter (Col. 4 lines 49 – 62, the parameter is an SIR); and

a transmitter for transmitting the first power control commands to the base station; a first downlink signal which was subjected to transmit power control in accordance with the first power control commands (Col. 4 lines 49 – 62).

Park's known technique of controlling the downlink power would have been recognized by one skilled in the art as applicable to the base process of Oh and the results would have been predictable and resulted the base station transmit power being controlled thus enabling a particular quality to be maintained on the downlink which is an improved process.

Therefore, the claimed subject matter would have been obvious to a person having ordinary skill in the art at the time the invention was made.

Regarding Claim 18, Oh teaches a method of operating a mobile station, the method comprising: receiving, via a receiver, from a base station a first downlink signal including at least one second power control command devoid of predetermined pilot signals (Cols. 3 lines 8 – 22, 4 lines 32 – 46, 9 lines 61 – 67, 17 lines 53 – 57); measuring a parameter of the second power control commands via an analyzer (Cols. 3 lines 8 – 22, 4 lines 32 – 46, 9 lines 61 – 67, 17 lines 53 – 57, the parameter is an SIR); wherein the analyzer is adapted to measure the parameter of the second power control commands included in said first downlink signal (Cols. 3 lines 8 – 22, 4 lines 32 – 46, 9 lines 61 – 67, 17 lines 53 – 57).

Oh does not teach generating first power control commands according to the measured parameter via a power controller; and transmitting the first power control commands to the base station via a transmitter; wherein the analyzer is adapted to

measure the parameter of the second power control commands included in said first downlink signal which was subjected to transmit power control in accordance with the first power control commands.

Oh teaches the base process of controlling power of the uplink over which the claimed invention can be seen as an improvement in that the downlink power is controlled.

Park teaches the known technique of generating first power control commands according to a measured parameter (Col. 4 lines 49 – 62, the parameter is an SIR); and a transmitter for transmitting the first power control commands to the base station; a first downlink signal which was subjected to transmit power control in accordance with the first power control commands (Col. 4 lines 49 – 62).

Park's known technique of controlling the downlink power would have been recognized by one skilled in the art as applicable to the base process of Oh and the results would have been predictable and resulted the base station transmit power being controlled thus enabling a particular quality to be maintained on the downlink which is an improved process.

Therefore, the claimed subject matter would have been obvious to a person having ordinary skill in the art at the time the invention was made.

Regarding Claims 15, 20, 23, Oh in view of Park teaches all of the claimed limitations recited in Claims 13, 18, 21. Oh further teaches wherein a transmit power of the transmitter is adjusted in accordance with the second power control commands decoded by the power controller (Col. 9 lines 61 – 67).

Regarding Claims 16, 24, Oh in view of Park teaches all of the claimed limitations recited in Claims 13, 21. Oh further teaches a base station and at least one mobile station (Col. 4 lines 32 – 46).

Regarding Claims 17, 25, Oh in view of Park teaches all of the claimed limitations recited in Claims 16, 24. Oh further teaches wherein the base station includes: a transmitter/transmitter means for transmitting the first downlink signal modulated with the second power control commands (Cols. 3 lines 8 – 22, 9 lines 61 – 67). Park further teaches a receiver/receiver means for receiving the first power control commands; and a downlink signal subjected to the transmit power control in accordance with the first power control commands (Col. 4 lines 49 – 62).

4. Claims 14, 19, 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oh et al. (US 7,340,268) in view of Park et al. (US 6,654,358), as applied to Claims 13, 18, 21 above, and further in view of Hwang et al. (US 2002/0077141)

Regarding Claims 14, 19, 22 Oh in view of Park teaches all of the claimed limitations recited in Claims 13, 18, 21. Oh in view of Park does not teach wherein the receiver is configured to derive a channel estimate from a second downlink signal and to employ the channel estimate to decode the first downlink signal.

Oh in view of Park teaches a system which differs from the claimed process by the substitution of step of decoding the downlink signal in order to extract information. Hwang teaches the substituted step of deriving a channel estimate from a second downlink signal and to employ the channel estimate to the decode the first downlink

signal (Section 0156 lines 7 – 14, the channel estimation provides phase shift information about the downlink signal, which aids in decoding the signal), which is known in the art as a means to decode the downlink signal in order to extract information. Oh in view of Park's step of decoding the downlink signal in order to extract information could have been substituted with the above feature of Hwang as an alternative means for achieving the predictable result of decoding a downlink signal for the purpose of extracting information.

Therefore, the claimed subject matter would have been obvious to a person having ordinary skill in the art at the time the invention was made.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to RAYMOND DEAN whose telephone number is (571)272-7877. The examiner can normally be reached on Monday-Friday 6:00-2:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward F. Urban can be reached on 571-272-7899. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Raymond S Dean/
Primary Examiner, Art Unit 2618
October 19, 2011